

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An input apparatus for performing an input operation as ~~a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or ~~[[the]]~~ a touching operation ~~[[is]]~~ being performed on the front surface of the panel;

waveform generation means for generating a first signal waveform having a first amplitude ~~after the pressing operation or the touching operation is performed~~ when the input detection means detects that the ~~pressing operation or the touching~~ input operation is being performed, and generating a second signal waveform having ~~a larger~~ a second amplitude which is larger than the first amplitude after the input detection means confirms the input operation is a pressing operation ~~or the touching operation is confirmed~~ ~~than the signal waveform generated after the pressing operation or the touching operation is performed~~; and

panel deforming means for deforming the panel corresponding to the signal ~~waveform~~ waveforms generated by the waveform generation means.

2. (Currently Amended) The input apparatus as set forth in claim 1,

wherein the first signal waveform generated by the waveform generation means ~~after the pressing operation or the touching operation is performed~~ ~~has a smaller amplitude and~~ has a higher frequency than the second signal waveform generated by the waveform generation means ~~after the pressing operation or the touching operation is confirmed~~.

3. (Currently Amended) The input apparatus as set forth in claim 1,

wherein the input detection means detects a signal from the input operation that ~~varies~~
~~when the pressing operation or the touching~~ changes as the input operation is being
performed on the front surface of the panel and uses the signal from the input operation to
~~determine~~ confirm whether the pressing operation or the touching operation is being
~~performed~~ performed on the front surface of the panel, and

wherein the waveform generation means generates ~~[[a]]~~ the first signal waveform
after ~~the pressing operation or the touching operation is performed and~~ the signal from the
input operation is detected by the input detection means and starts changing, and generates
~~[[a]]~~ the second signal waveform ~~having a larger amplitude~~ after the signal from the input
operation becomes stable so as to confirm the pressing operation ~~and the pressing operation~~
~~or the touching operation is confirmed than the signal waveform generated after the pressing~~
~~operation or the touching operation is performed.~~

4. (Currently Amended) The input apparatus as set forth in claim 1,

wherein the waveform generation means varies ~~[[a]]~~ the first signal waveform after
the ~~pressing operation or the touching~~ input operation is performed until the pressing
operation ~~or the touching operation~~ is confirmed.

5. (Currently Amended) The input apparatus as set forth in claim 1,

wherein when the input detection means detects that the ~~pressing operation or the~~
~~touching~~ input operation is being ~~performed~~ performed ~~and the pressing operation or the~~
~~touching operation is not accepted as the input operation~~ on a portion of the front surface of
the panel where a pressing operation will not be recognized by the input detection means, the
waveform generation means generates ~~[[a]]~~ only the first signal waveform ~~only~~ after the

~~pressing operation or the touching~~ input operation is ~~performed~~ started until the pressing operation ~~or the touching operation~~ is confirmed.

6. (Currently Amended) An information process apparatus having an input apparatus for performing an input operation ~~as a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or ~~[[the]]~~ a touching operation ~~[[is]]~~ being performed on the front surface of the panel;

waveform generation means for generating a first signal waveform having a first amplitude ~~after the pressing operation or the touching operation is performed~~ when the input detection means detects that the ~~pressing operation or the touching~~ input operation is being performed, and generating a second signal waveform having ~~a larger~~ a second amplitude which is larger than the first amplitude after the input detection means confirms the input operation is a pressing operation ~~or the touching operation is confirmed than the signal waveform generated after the pressing operation or the touching operation is performed~~; and

panel deforming means for deforming the panel corresponding to the signal ~~waveform~~ waveforms generated by the waveform generation means.

7. (Currently Amended) A remote control apparatus having an input apparatus for performing an input operation ~~as a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or ~~[[the]]~~ a touching operation ~~[[is]]~~ being performed on the front surface of the panel;

waveform generation means for generating a first signal waveform having a first amplitude after the pressing operation or the touching operation is performed when the input detection means detects that the ~~pressing operation or the touching~~ input operation is being performed, and generating a second signal waveform having ~~a larger~~ a second amplitude which is larger than the first amplitude after the input detection means confirms the input operation is a pressing operation or the touching operation is confirmed than the signal waveform generated after the pressing operation or the touching operation is performed; and

panel deforming means for deforming the panel corresponding to the signal ~~waveform~~ waveforms generated by the waveform generation means.

8. (Currently Amended) A control method of an input apparatus for performing an input operation as ~~a pressing operation or a touching operation~~ on a front surface of a panel, the method comprising ~~the steps of~~:

detecting an input operation and confirming whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel;

generating a first signal waveform having a first amplitude after the pressing operation or the touching operation is performed when it is detected that the ~~pressing operation or the touching~~ input operation is being performed;

generating a second signal waveform having a second amplitude which is larger than the first amplitude after the pressing operation ~~or the touching operation~~ is confirmed ~~than the signal waveform generated after the pressing operation or the touching operation is performed~~; and

deforming the panel corresponding to one of the generated signal ~~waveform~~ waveforms.

9. (Currently Amended) An input apparatus for performing an input operation as ~~a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or ~~[[the]]~~ a touching operation ~~[[is]]~~ being performed on the front surface of the panel;

time period measurement means for measuring a time period ~~after~~ from when the ~~pressing operation or the touching operation is performed~~ input operation is detected until the pressing operation ~~or the touching operation~~ is confirmed ~~when the input detection means detects that the pressing operation or the touching operation is being performed on the front surface of the panel;~~

waveform generation means for generating a signal waveform ~~corresponding to~~ based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

10. (Currently Amended) The input apparatus as set forth in claim 9,

wherein the signal waveform generated by the waveform generation means ~~generates~~ ~~a signal waveform having~~ has an amplitude reversely proportional to the time period measured by the time period measurement means.

11. (Currently Amended) The input apparatus as set forth in claim 9,

wherein the signal waveform generated by the waveform generation means ~~generates~~ ~~a signal waveform having a larger amplitude~~ when the time period measured by the time period measurement means is shorter than a predetermined time period has an amplitude which is larger than an amplitude of ~~[[a]]~~ the signal waveform generated by the waveform

generation means when the time period measured by the time period measurement means is longer than the predetermined time period.

12. (Currently Amended) The input apparatus as set forth in claim 9,
wherein the input detection means detects a signal from the input operation that varies ~~when the pressing operation or the touching~~ as the input operation is being performed on the front surface of the panel and uses the signal from the input operation to determine confirm whether the pressing operation or the touching operation is being ~~performed~~ performed on the front surface of the panel, and

wherein the time period measurement means confirms the pressing operation ~~or the touching operation~~ is being performed when the signal that varies ~~after the pressing operation or the touching operation~~ while the input operation is performed becomes stable ~~and measures a time period after the pressing operation or the touching operation is performed until the pressing operation or the touching operation is confirmed.~~

13. (Currently Amended) An information process apparatus having an input apparatus for performing an input operation ~~as a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or ~~[[the]]~~ a touching operation ~~[[is]]~~ being performed on the front surface of the panel;

time period measurement means for measuring a time period ~~after~~ from when the ~~pressing operation or the touching operation is performed~~ input operation is detected until the pressing operation ~~or the touching operation~~ is confirmed ~~when the input detection means~~

~~detects that the pressing operation or the touching operation is being performed on the front surface of the panel;~~

waveform generation means for generating a signal waveform ~~corresponding to~~ based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

14. (Currently Amended) A remote control apparatus having an input apparatus for performing an input operation ~~as a pressing operation or a touching operation~~ on a front surface of a panel, comprising:

input detection means for detecting an input operation and confirming whether the input operation is a pressing operation or [[the]] a touching operation [[is]] being performed on the front surface of the panel;

time period measurement means for measuring a time period ~~after~~ from when the ~~pressing operation or the touching operation is performed~~ input operation is detected until the pressing operation ~~or the touching operation~~ is confirmed ~~when the input detection means detects that the pressing operation or the touching operation is being performed on the front surface of the panel;~~

waveform generation means for generating a signal waveform ~~corresponding to~~ based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

15. (Currently Amended) A control method of an input apparatus for performing an input operation ~~as a pressing operation or a touching operation~~ on a front surface of a panel, the method comprising the steps of:

detecting an input operation and confirming whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel;

measuring a time period ~~after~~ from when ~~the pressing operation or the touching operation is performed~~ input operation is detected until the pressing operation ~~or the touching operation~~ is confirmed ~~when it is detected that the pressing operation or the touching operation is being performed on the front surface of the panel;~~

generating a signal waveform with a waveform generating unit ~~corresponding to~~ based on a length of the measured time period; and

deforming the panel corresponding to the signal waveform generated by the waveform generation ~~means~~ unit.

16. (New) The input apparatus as set forth in claim 3, wherein the waveform generation means generates the second signal waveform after the signal from the input operation becomes stable and maintains stability for a predetermined period of time.

17. (New) The input apparatus as set forth in claim 3, wherein the signal from the input operation changes based on a change in a coordinate location of the input operation on the front surface of the panel and the signal from the input operation is stable if the coordinate location of the input operation on the front surface of the panel does not change.

18. (New) The input apparatus as set forth in claim 9, wherein

the waveform generation means generates another signal waveform while the time period measurement means measures the time period, and

the panel deforming means deforms the panel corresponding to the another signal waveform until the time period has been measured, and then deforms the panel corresponding to the signal waveform based on the length of the measured time period after the time period has been measured.

19. (New) The input apparatus as set forth in claim 12, wherein the time period measurement means confirms the pressing operation is being performed when the signal that varies while the input operation is performed becomes stable and maintains stability for a predetermined period of time.

20. (New) The input apparatus as set forth in claim 12, wherein the signal from the input operation varies based on a change in a coordinate location of the input operation on the front surface of the panel and the signal from the input operation is stable if the coordinate location of the input operation on the front surface of the panel does not change.